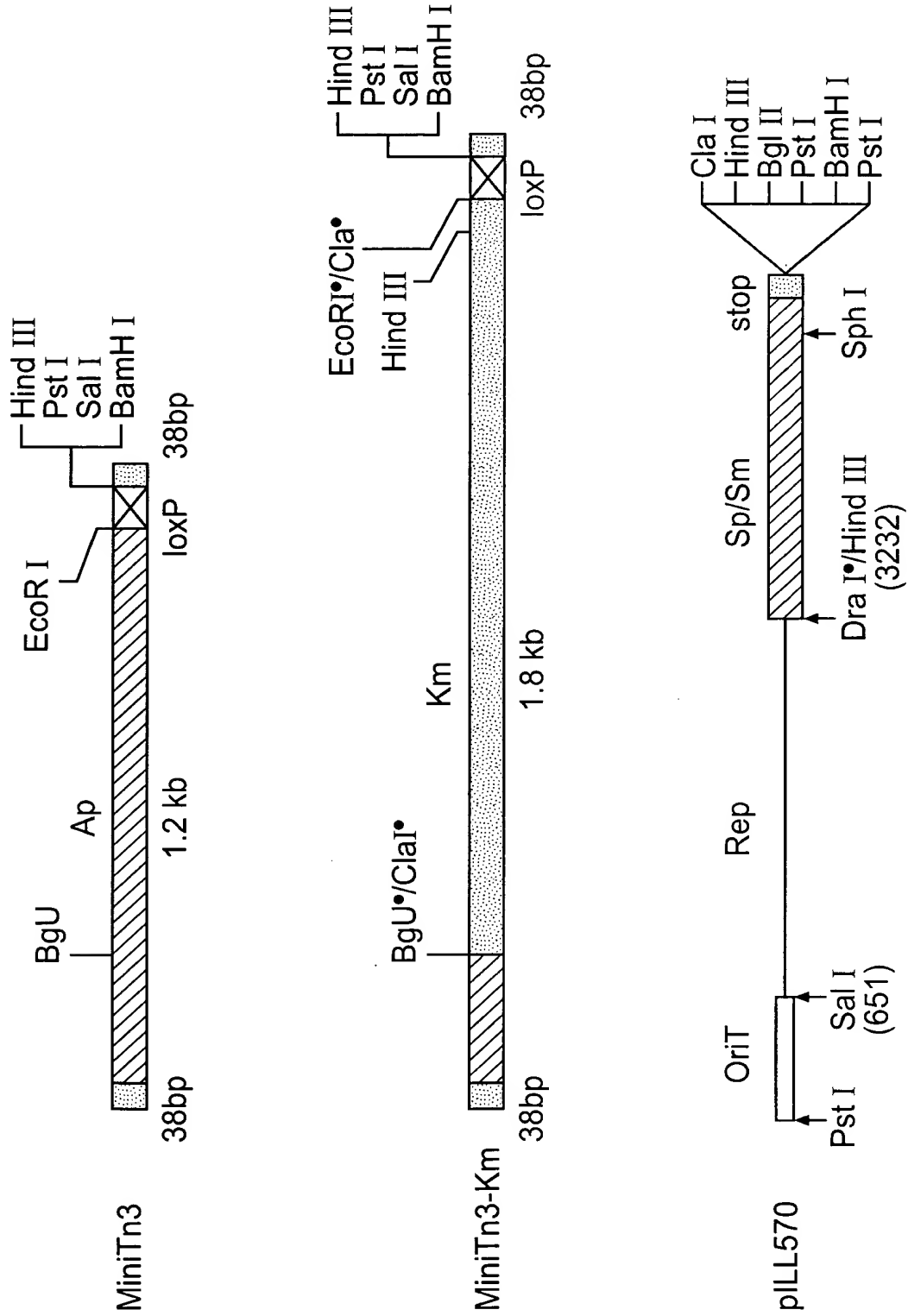




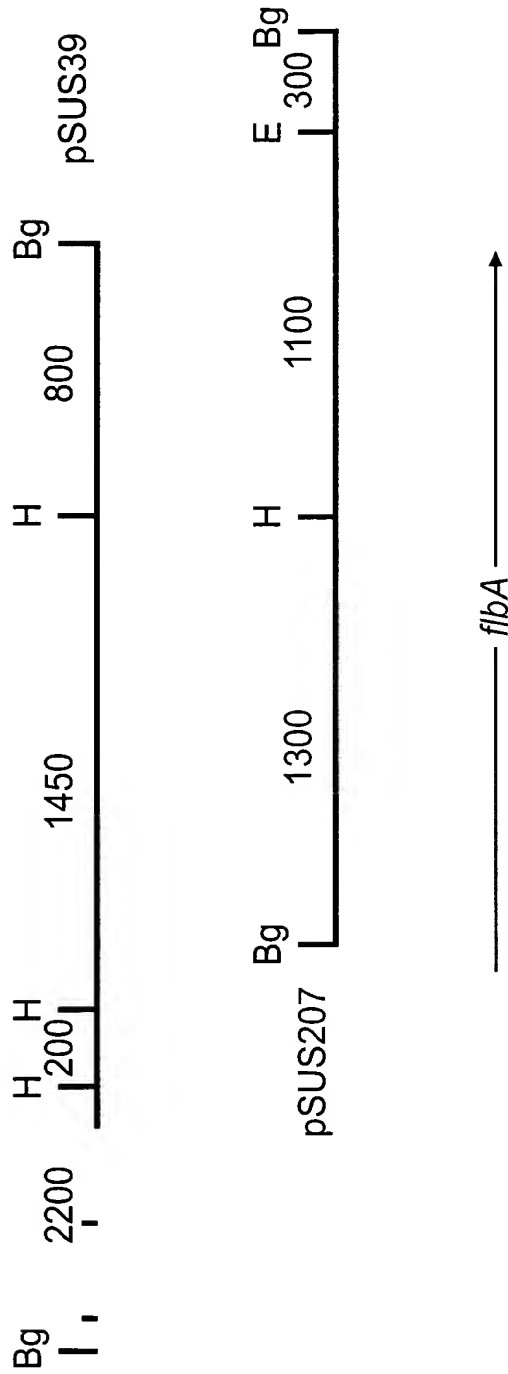
# Replacement Sheet



**FIG. 1A**



Replacement Sheet



**FIG. 1B**



# Replacement Sheet

1 AGC TTT TTT GTG CCA TAC TTT TAA ACT TTA TAT TAT AAT AAG AGA CAA ACA CAC CTA CCA 31

61 AAA TTA AGG CAT TGA TTT TAG ATT ATG GCA AAC GAA CGC TCC AAA TTA GCT TTT AAA AAG 91  
M A N E R S K L A F K K

121 ACT TTC CCT GTC TTT AAA CGC TTC TTG CAA TCC AAA GAC TTA GCC CTT GTG GTC TTT GTG 151  
T F P V F K R F L Q S K D L A L V V F V

181 ATA GCG ATT TTA GCG ATC ATT ATC GTG CCG TTA CCG CCT TTT GTG TTG GAT TTT TTA CTC 211  
I A I L A I I I V P L P P P F V L D F L L

241 ACG ATT TCT ATC GCG CTA TCG GTG TTG ATT ATT TTA ATC GGG CTT TAT ATT GAC AAA CCG 271  
T I S I A L S V L I I L I G L Y I D K P

301 ACT GAT TTT AGC GCT TTC CCC ACT TTA TTA CTC ATT GTA ACC TTA TAC CGC TTG GCT TTA 331  
T D F S A F P T L L L I V T L Y R L A L

361 AAT GTC GCC ACC ACT AGA ATG ATT TTA ACC CAA GGC TAT AAA GGG CCT AGC GCG GTG AGC 391  
N V A T T R M I L T Q G Y K G P S A V S

421 ATT ATT ATC ACG GCG TTT GGG GAA TTT AGC GTG AGC GGG AAT TAT GTG ATT GGG GCT ATT 451  
I I I T A F G G E F S S V S G N Y V I G A I

FIG. 2A



## Replacement Sheet

481  
ATC TTT AGT ATT TTA GTG CTG GTG AAT TTA TTA GTG GTT ACT AAT GGT TCT ACT AGG GTT  
I F S I L L V L V N L L L V V T T N G S T R V

541  
ACT GAA GTT AGG GCG CGA TTT GCC CTA GAC GCT ATG CCA GGA AAG CAA ATG GCG ATT GAT  
T E V R A R A F A L D A M P G K Q M A I D

601  
GCG GAT TTA AAT TCA GGG CTT ATT GAT GAT AAG GAA GCT AAA AAA CGG CGC GCC GCT CTA  
A D L N S G L I D D K E A K K R R A A L

661  
AGC CAA GAA GCG GAT TTT TAT GGT GCG ATG GAT GGC GCG TCT AAA TTT GTC AAA GGC GAT  
S Q E A D F Y G A M D G G A S K F V K G D

721  
GCG ATC GCT TCT ATC ATT ATC ACG CTT ATC AAT AAT ATC ATT GGG GGT TTT TTA GTG GGC GTG  
A I A S I I I T L I N I I G G F L V G V

781  
TTC CAA AGG GAT ATG AGC TTG AGC TTT AGT GCT AGC ACT TTC ACT ATC TTA ACC ATT GGC  
F Q R D M S L S F S A S S T F T I L T I G

841  
GAT GGG CTT GTA GGG CAA ATC CCT GCC TTA ATC ATT GCG ACA CGG ACC GGT ATT GTC GCC  
D G L V G Q I P A L I I A T R T G I V A

901  
ACT CGC ACC ACG CAA AAC GAA GAG GAC TTT GCT TCT AAG CTC ATC ACA CAG CTC ACC  
T R T Q N E E E D F A S K L I T Q L T

**FIG. 2B**



# Replacement Sheet

961 AAT AAA AGC AAA ACT TTA GTG ATT GTG GGG GCG ATT TAT TGC TTT TGC ACC ATT CCT GGA  
N K S K T L V I V G A I Y C F C T I P G  
1021 CTC CCT ACC TTT TCT TTA GCG TTT GTA GGG GCT CTC TTT TTA TTC ATC GCA TGG CTG ATT  
L P T F S L A F V G A L F L F I A W L I  
1081 AGC AGG GAG GGA AAG GAC GGG TTG CTC ACT AAA TTA GAA AAT TAT TTG AGT CAA AAA TTC  
S R E G K D G G L L T T K L E N Y L S Q K F  
1141 GGC TTG GAT TTG AGC GAA AAA CCC CAC AGC TCC AAA ATC AAA CCC CAC GCC CCC ACC ACA  
G L D L S E K P H S S K I K P H A P T T  
1201 AGG GCT AAA ACC CAA GAG ATT AAA AGA GAA GAG CAA GCC ATT GAT GAA GTG TTA  
R A K T Q E E I K R E E Q A I D E V L  
1261 AAA ATT GAA TTT TTA GAA TTG GCT TTA GGC TAT CAG CTC TAC AGC TTA GCG GAC ATG AAA  
K I E F L L E L A L G Y Q L Y S L A D M K  
1321 CAA GGG GGC GAT TTG TTA GAA AGG ATT AGG GGT ATT AGA AAA AAG ATA GCG AGC GAT TAT  
Q G G D L L E R I R G I R K K I A S D Y  
1381 GGT TTT TTG ATG CCT CAA ATT AGG ATT AGG GAT AAT TTA CAA CTC CCC CCA ACG CAT TAT  
G F L M P Q I R I R D N L Q L P T H Y

FIG. 2C



# Replacement Sheet

1441 GAA ATC AAG CTT AAG GGC ATT GTG ATT GGT GAA GGC ATG GTG ATG CCG GAT AAG TTT TTA  
E I K L K G I V I G G E G M V M P Q K F L  
1501 GCC ATG AAT ACC GGT TTT GTG AAT AAA GAA ATT GAA GGC ATT CCT ACT AAA GAG CCG GCT  
A M N T G G F V N K E I E G I P T K E P A  
1561 TTT GGA ATG GAC GCT TTA TGG ATT GAA ACT AAA AAT AAA GAA GCC ATC ATT CAA GGC  
F G M D A L W I E T K N K E E A I I Q G  
1621 TAT ACC ATT ATT GAT CCA AGC ACC GTT ATT GCG ACG CAC ACC AGC GAA TTA GTG AAA AAA  
Y T I I D P S T V I A T H T S E L V K K  
1681 TAC GCT GAA GAT TTT ATC ACT AAA GAT GAA GTG AAA TCC CTT TTA GAG CGC TTG GCC AAA  
Y A E D F I T K D E V K S L L E R L A K  
1741/581 GAC TAT CCT ACG ATT GTA GAA GAG AGT AAA AAA ATC CCC ACC GGT GCG ATC CGA TCA GTC  
D Y P T I V E E S K I P T G A I R S V  
1801 TTG CAA GCC TTG TTG CAT GAA AAA ATC CCC ATT AAA GAC ATG CTC ACT ATT TTA GAA ACG  
L Q A L L H E K I P I K D M L T I L E T  
1861 ATT ACC GAT ATT GCG CCA TTA GTT CAA AAC GAT GTG AAT ATC TTA ACC GAA CAA GTG AGG  
I T D I A P L V Q N D V N I L T E Q V R

FIG. 2D



# Replacement Sheet

1921	GCG	AGG	CTT	TCT	AGG	GTG	ATC	ACT	AAC	GCT	TTT	AAA	TCT	GAA	GAC	GGG	CGT	TTG	AAA	TTT
A	R	L	S	R	T	V	I	T	N	A	F	K	S	E	D	G	R	L	K	F
1981	TTA	ACC	TTT	TCT	ACC	GAT	AGC	GAA	CAA	TTT	TTG	CTT	AAT	AAA	TTG	CGA	GAA	AAT	GGC	ACT
L	T	F	S	T	T	D	S	E	Q	F	L	L	N	K	L	R	E	N	G	T
2041	TCT	AAG	AGC	CTA	CTA	CTC	AAT	GTG	GGC	GAA	TTG	CAA	AAA	CTC	ATT	GAA	GCG	GTC	TCT	GAA
S	K	S	L	L	L	L	N	V	G	E	L	Q	K	L	I	E	A	V	S	E
2101	GAG	GCC	ATG	AAA	GTC	TTG	CAA	AAA	GGG	ATC	GCT	CCG	GTG	ATT	TTG	ATC	GTA	GAG	CCT	AAT
E	A	M	K	V	V	L	Q	K	G	I	A	P	V	I	L	I	V	E	P	N
2161	TTA	AGA	AAA	GCC	CTT	TCT	AAT	CAA	ATG	GAG	CAG	GCT	AGG	ATT	GAT	GTA	ATC	GTG	CTA	AGC
L	R	K	A	L	L	S	N	Q	M	E	Q	A	R	I	D	V	I	V	L	S
2221	CAT	GCT	GAA	TTA	GAT	CCT	AAC	TCT	AAT	TTT	GAA	GCC	TTA	GGC	ACG	ATC	CAT	ATT	AAC	TTT
H	A	E	L	D	P	P	N	S	N	F	E	A	L	G	T	I	H	I	N	F
2281	TAA	GGG	ATA	AAT	AAT	TGA	TAA	AAA	AGG	AGA	ATG	ATG	CAA	GTT	TAT	CAC	CTT	TCA	CAC	ATT
2341	GAT	TTA	GAC	GGC	TAT	GCA	TGC	CAG	CTT	GTT	TCA	AAA	CAA	TTT	TTT	AAA	AAT	ATC	CAA	TGC
2401	TAT	AAC	GCT	AAT	TAC	GGG	CGT	GAA	GTC	TCA	GCG	AGA	ATT	TAT	GAG	ATT	TTA	AAC	GCG	ATC
2461	GCT	CAA	TCT	AAA	GAG	AGT	GAA	TTC	CTT	ATT	TTG	ATT	AGC	GA						

FIG. 2E



Replacement Sheet

1	MANKRS-KLAFKKTFPVFKRFLQSKDLALVVFVIAIALIIIVPLPPFVLDFFLLTISIALS	HpFlba
1	MAKNKIVDLVFPFLGPLIAPVLKAKSLTIVGFLVCILAIIVPLPSPILDFFLALSIALS	CjFlba
1	MADAAAPNASSMPsAKSLDGLMRGEMGLAGVVGIIIVLLIIPVPAPLLDVLLAISLTGS	CcFlbF
1	-----MNPDLWLNRIGERKDIMLAVLLAVVFMVPLPPLVLDILIAVNMTIS	YpLcrD
1	-----MLLSLNSARLRPRLLILVLMVMIISMFVIPLPTYLVDFLIALNIVLA	StInva
1	-----MVMIIAMLIIPPTYLVDFLIGLNIVLA	SfMxia
60	VLIILIGLYIDKPTDFSAPTLLLIIVTLYRLALNVATTRMILLTQGYKGPSAVSIIITAFG	HpFlba
61	VLIILISIIYIPKPTDLTTFPTLLIILITLFRISLNIATTRMILLSEGQNGPEAVSEIIAAFG	CjFlba
61	VLIIMTAIILIKKPLEFTSFPTVLLVTTLFRGLNIASTRLLILSHGQEGTGAGAVIEAFG	CcFlbF
52	VVLLMIAIYINSPLOFSAPPAVLLVTTLFRALS SVSTRMILLQ-----ADAGQIVYTFG	YpLcrD
49	ILVFMGSFYIDRIILSFSTFPVAVLLITTLFRALSISTSRLLILIEA-----DAGEIIATFG	StInva
29	ILVFMGSFYIERILSFSTFPVSVLLITTLFRALSISTSRLLILVDADRKG-----IITTFG	SfMxia
	.. * . . . . * . . . . * . . . . *	
120	EFVSGNYVIGAIIFSILVLVNLVVTNGSTRVTEVRARFALDAMPKGQMAIDADLNSGL	HpFlba
121	EFVVGGMVIGVIVFCILVLINFMVVTKGSTRVSEVQARFTLDAMPKGQMAIDADLNAGL	CjFlba
121	HLMMQGNFVIGVIVFIILIVNFMVVTKGSGRIAEVAARFTLD SMPKGQMAIDADLSTGL	CcFlbF
107	NFVVGGNLIVGIVIFLIITIVQFLVITKGSERVAEVSARFSLDAMPGKOMSIDGDMRAGV	YpLcrD
104	QFVIGDSLAVGFVVSIVTVVQFIVITKGSERVAEVAARFSLDGMFGKQMSIDADLKAGI	StInva
84	QFVIGDSLAVGFVIFSIVTVVQFIVITKGSERVAEVAARFSLDGMFGKQMSIDADLKAGI	SfMxia
	.. . . * * * . . . * * * * * * * * * *	

FIG. 3A





# Replacement Sheet

180 IDDKKRAALSQEADFYGAMDGASKFVKGDAIASIIITLNIIGGFLVGVFQDMSL HpFlba  
181 IDEQTARARRQEVIAEANYGAMDGSSKFIKGDVAGIIITIIINIIIGGFLIGSFQHDMAI CjFlba  
181 ISQDEAKIRKKELEQESTFFGAMDGASKFVKGDAIAGLIITAINIIGGIIIGVVQHKMPF CcFlbF  
167 IDVNEARERRATIEKESQMFSGMDGAMKFKGDAIAGLIIFVNIILGGVTIGVTQKGLAA YpLcrD  
164 IDADAARERRSVLERESQLYGSFDMGAMKFKGDAIAGLIIFVNFIFGIGISVGMTRHGMMDL StInva  
144 IDAAGAKERRSILERESQLYGSFDMGAMKFKGDAIAGLIIFVNLIGGISVGMSQHGMMSL SfmXia  
\* . \* \* . . \* \* \* \* \* \* \* \* \* \* \* . . . . .

240 SFSASTFTILTIGDGLVGQIPALIIATRTGIVATRTTQNEEEDFASKLITQLTNKSKTLV HpFlba  
241 SDAASTYTILTIGDGLVSQIPGLITSTATAIIITRASKDEENFAEGTLTQLLSEYRTLII CjFlba  
241 GDAASTYTIMTIGDGLVSQIPALIIISIAAGMVSKAGVEGSADKALTQLAMNPVGLGMV CcFlbF  
227 AEALQLYSILTVGDGMVSQVPALLIAITAGIIVTRVSSDSDLGSDIGKQVVAQPKAML YpLcrD  
224 SSALSTYTMLTIGDGLVAQIPALLIAISAGFIIVRVNGDTDN-MGRNIMTQLLNNPFVLV StInva  
204 SGALSTYTILTIGDGLVSQIPALLISISAGFMLTRVNGDSDN-MGRNIMSQIFGNPFVLI SfmXia  
\* . . . . . \* \* \* \* \* \* \* \* \* \* \* . . . . .

300 IVGAIYC-FCTIPGLPTFSLAFVGALFLFIAWLISREGKDGLLTKLENYLSQKFGLDLSE HpFlba  
301 VGFVLFI-FALVPGLPTLSLGFMAVFLSLGYLTQVKEGKI----DITTVKKSKPSAA CjFlba  
301 SASSG-I-IALIPGMPIFPFAAMALA-----AGALAY CcFlbF  
287 IGVLLLLFGLIPGFTVTFLILALLVCGGGMVLSRKQSRNDEANQDLQSIILTSKSGAPA YpLcrD  
283 VTAILTISMGTLPGFPLPVFVILSVLSVLFFYKFKREAKRSAKPKTSKGEQPLSIEEKE StInva  
263 VTSALALAIMLPGFPFFVFFLIVTTLTALFYKKVVEKEKSLSESDSSGYTG----- SfmXia  
\* \* \* . . . . .

FIG. 3B



# Replacement Sheet

359 KPHSSKIKPHAPTTRAKTQEEIKREEEQAIDEVLKIEFLELALGYQLYSLADMKQGGDLL HpFlba  
355 VASQSGAGTTAAPAKKSEEEIILKEECHKINDILKVEILELELGYGLIKLAE---NELT CjFlba  
331 KRVQDAKKPKALDPADLEAAAPSEPEEPISASLAIDDVKIELGYGLLTILINDLDGRKLT CcFlbF  
347 ARTKAKTSGANKGRIDGEQAFAMTVPLIIDVDS-----SQQEALEANALN YpLcrD  
343 GSSLGLIGDLKVSTE-----TVPLIILLVPKSRREDLEKA StInva  
316 -----TFDIDNTHDSSLAMIENLDRISSETVPLIILLFAENKINANDME SfMxia  
\* \* \*

419 ERIRGIRKKIASDYGFLMPQIRIRDNLQLPPTHYEIKLKGI VIGPGVMVDPDKFLAMNTGF HpFlba  
411 ERIRSMRRSIAESLGLFMPKIRIRDNLRLKPNESYFKLKGVSIASAEIYDPDKYLAMDSGF CjFlba  
391 DQIRALRKTASEYGFVMPPIRLDNMRLANQGYAIRIKEMEAGAGEVRLGCLMCDPRG CcFlbF  
392 DELVRVRALYLDLGVPPFGIHLRFNEGMGEYIISLQEVVPARGELKAGYLLVRESVS YpLcrD  
378 QLAERLRSQFFIDYGVRLPEVLLRDGEGLDDNSIVLLINEIRVEQFTVYFD--LMRVVNY StInva  
359 GLIERIRSQFFIDYGVRLPTILYRTSNEIKVDDIVLLINEVRADSFNIYFDKVCITDENG SfMxia  
\* \* \* \* \*

479 VNKEIEGIPTKEPAF--GMDALWIETKNKEEAIIQGYTIIIDPSTVIATHTSELVKKYAED HpFlba  
471 ITEEIEGIATKEPAF--NSDALWIDANLKD EATLNGYIVIDPASVISTHMSSELIKAHASE CjFlba  
451 GOVELPGEHVREPAF--GLPATWIADDLREEATFRGYTVVDPATVLTTHLTEILKENMAD CcFlbF  
452 QLELLGIPYEKGEHLLPDQEAFFWVSVEYEEERLEKSQLEFFSHSQVLTWHLSHVLREYAED YpLcrD  
436 SDEVVSFGINPTIHQQSSQYFWVTHEEGEKRLRELGYVLRNALDELYHCLAVTVARNVNE StInva  
419 DIDALGIPVVSTS--YNERVISWVDVSYTENLTNIDAKIKSAQDEFYHQLSQALLNNINE SfMxia  
\* \* \* \* \*

FIG. 3C



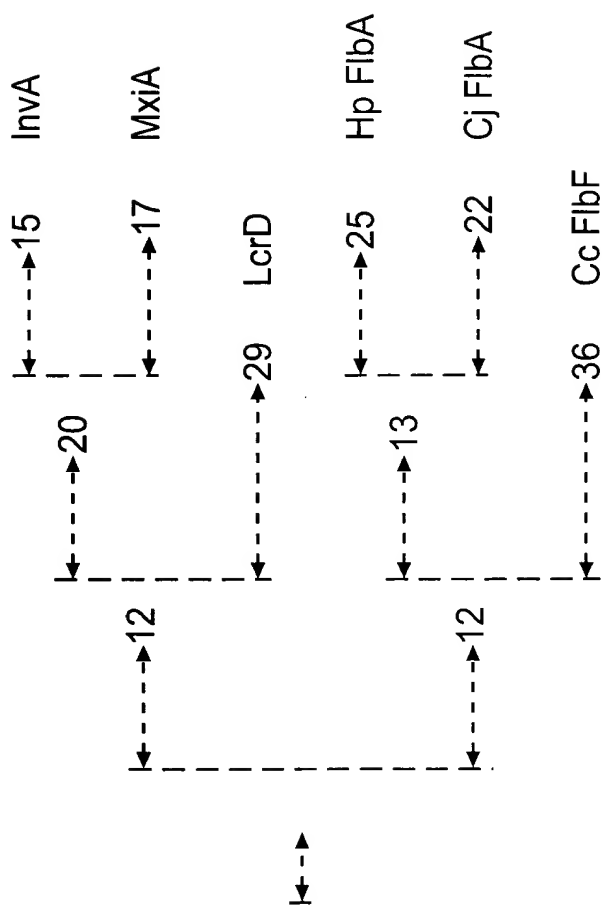
# Replacement Sheet

537	FITKDEVKSLERLAKDYPTIVEESK-KI-PTGAIRSVLQALLHEKIPKIDMLTILETIT	HpFlba
529	LLTRQEVQNLKVKNDYPIIVEGAL-GVAPVSLIQILKDLLKHHIPKIDMLTILESVS	CjFlba
509	LLSYAEVQKLLKELPETQKLLVDDLIPTVTATTQVRVLQSLRERSIRDLPQILEGVG	CcFlbf
512	FIGIOETRYLLEQMEGGYGELIKEVOR-IVPLQRMTEILQRLVGEDISIRNMRISILEAMV	YpLcrd
496	YFGIOETKHMLDQLEAKFPDLLKEVLRH-ATVQRISEVLQRLLSERVSVRNMKLIMEALA	StInva
477	IFGIOETKNMLDQFENRYPDLLKEVFRHV-TIQRISEVLQRLLGENISVRNLKLIMESLA	SfMxia
	* . . . . *	
595	DIAPLVQNDVNILTEQVRARLSRVITNAPKSEDRGLKFLTFSTDSEQLLNKLRENGTSK	HpFlba
588	DIAR-VSKSFDMIIEKVRASLARMI TNMYLDDKGNLDIFILDSASSAVLMENVQFRDGSY	CjFlba
569	EAAPHTA-SVTQLVEQVRARLARQLCWANRGDDGALPIITLSADWEQAFAEALIGPGDDK	CcFlbf
571	EWGQK-EKDVVQLTEYIRSSLKRYICYKANGNNILPAYLFDQOEVEEKIRSGVRQTSAGS	YpLcrd
555	LWAPR-EKDVINLVEHIRGAMARYICHKF-ANGGELRAVMVSAEVEDVIRKGIRQTSGST	StInva
536	LWAPR-EKDVITLVEHVRASSLRYICSK-IAVSGEIKVVMLSGYIEDAIRKGIRQTSGGS	SfMxia
	* . . . . *	
655	SLLLNVGELQKLI FAVSEEMKVLQKGIAPVILIVEPNLRKALSNQMEQARIDVIVLSHA	HpFlba
647	HLPLSVAQTGTLVDTLRAEVA AVANGRIKPFILCVEPQLRKF IADICYNFSINIVVLSFA	CjFlba
628	QALPPSRLODFIRGVRDSFERAALAGEAPVLL-TSPGVRRPYVRSI IERFRGQTVVMSQN	CcFlbf
630	YLALEPAVTESLLEQVRKTIGDLSQIQSKP-VLIVSMDIRRYVRKLIESEYYGLPVL SYQ	YpLcrd
613	FLSLDPFASANLMDLITLKLDDLIAH-KDLVLLTSVDVRRFIKKMIEGRFPDLEVL SFG	StInva
594	FLNMDIEVSDEVMETLAHALREL-RNAKKNFVLLVSDIRRFVKRLIDNRFKSILVISYA	SfMxia
	* . . . . *	
715	ELDPNSNFEALGTIHIINF	HpFlba
707	EIAENTNFNTEGIIRIEL	CjFlba
687	EIHPRARLKTVMV----	CcFlbf
689	ELTQQINIQLGRICL--	YpLcrd
672	EIADSKSVNVIKTI----	StInva
653	EIDEAYTINVLKTI----	SfMxia
	* . . . . *	

FIG. 3D



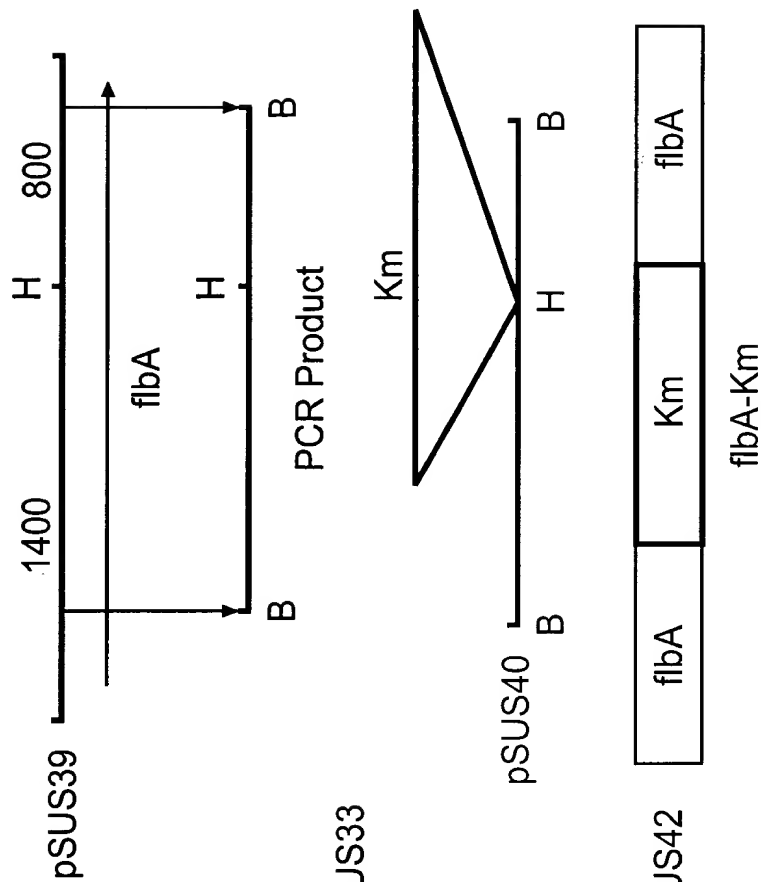
# Replacement Sheet



**FIG. 4**



Replacement Sheet



1) PCR amplification

2) Cloning the PCR product in pSUS33

3) Insertion of the Km cartridge

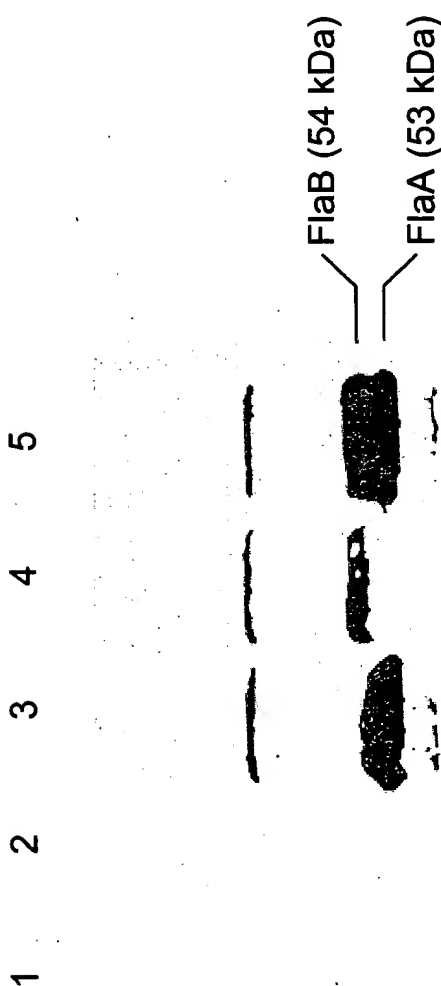
4) Electroporation in H. pylori N6

**FIG. 5**



# Replacement Sheet

BEST AVAILABLE COPY



**FIG. 6**



# Replacement Sheet

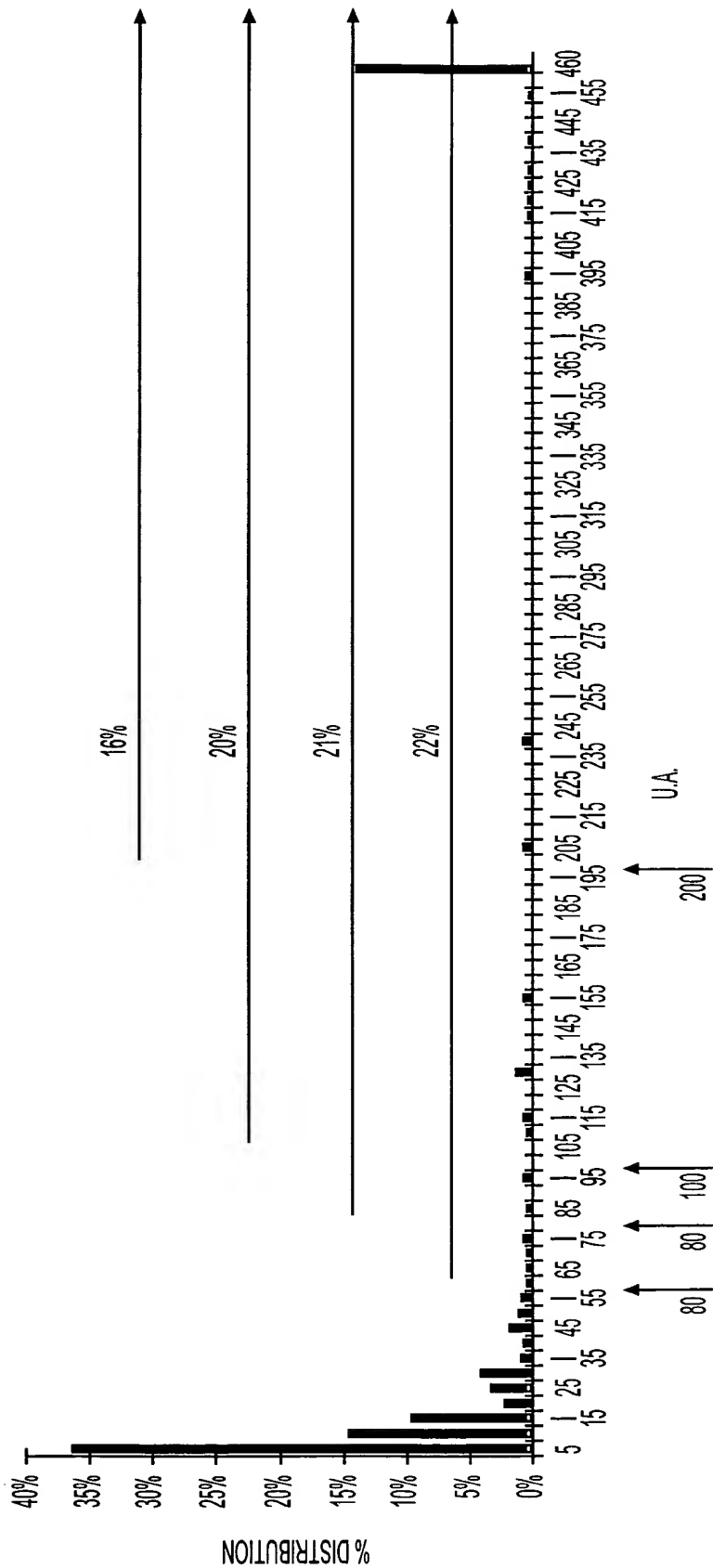


FIG. 7



# Replacement Sheet

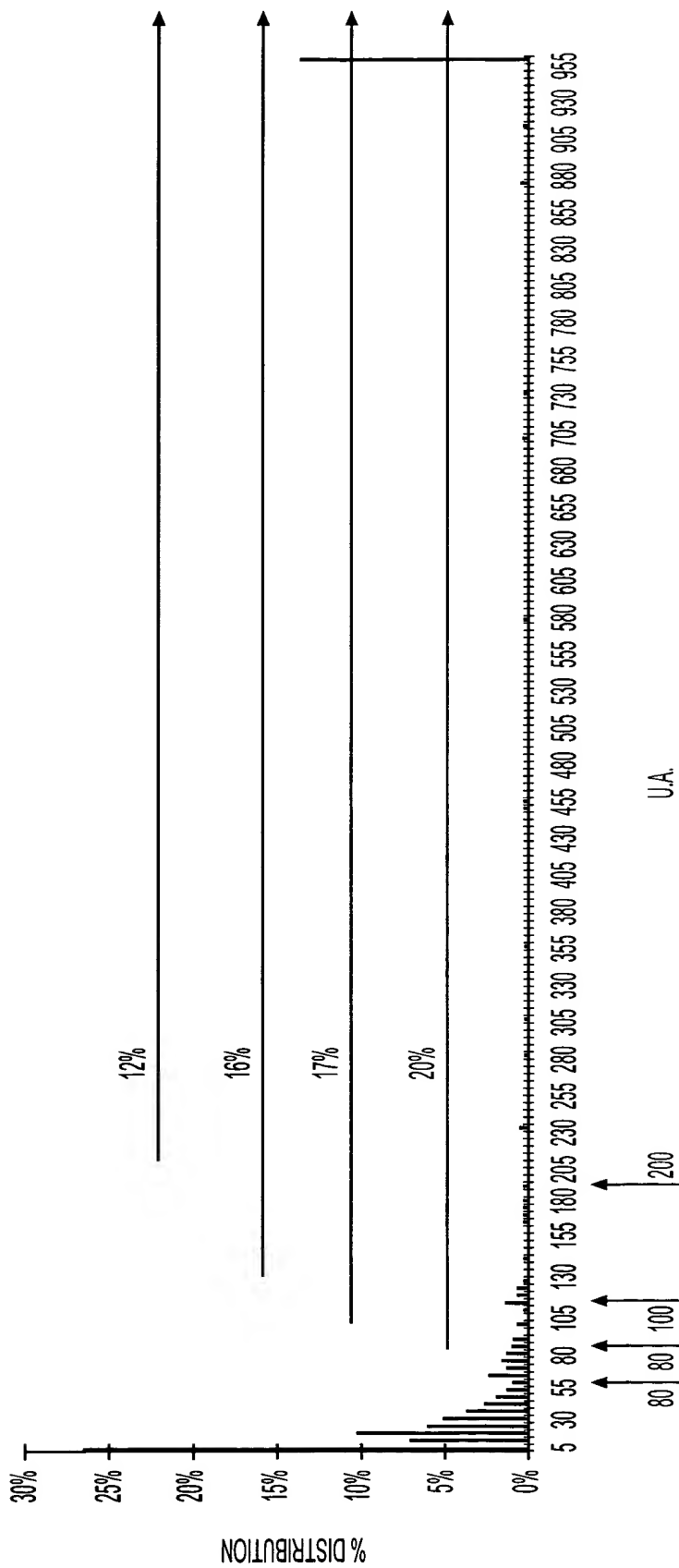


FIG. 8





# Replacement Sheet

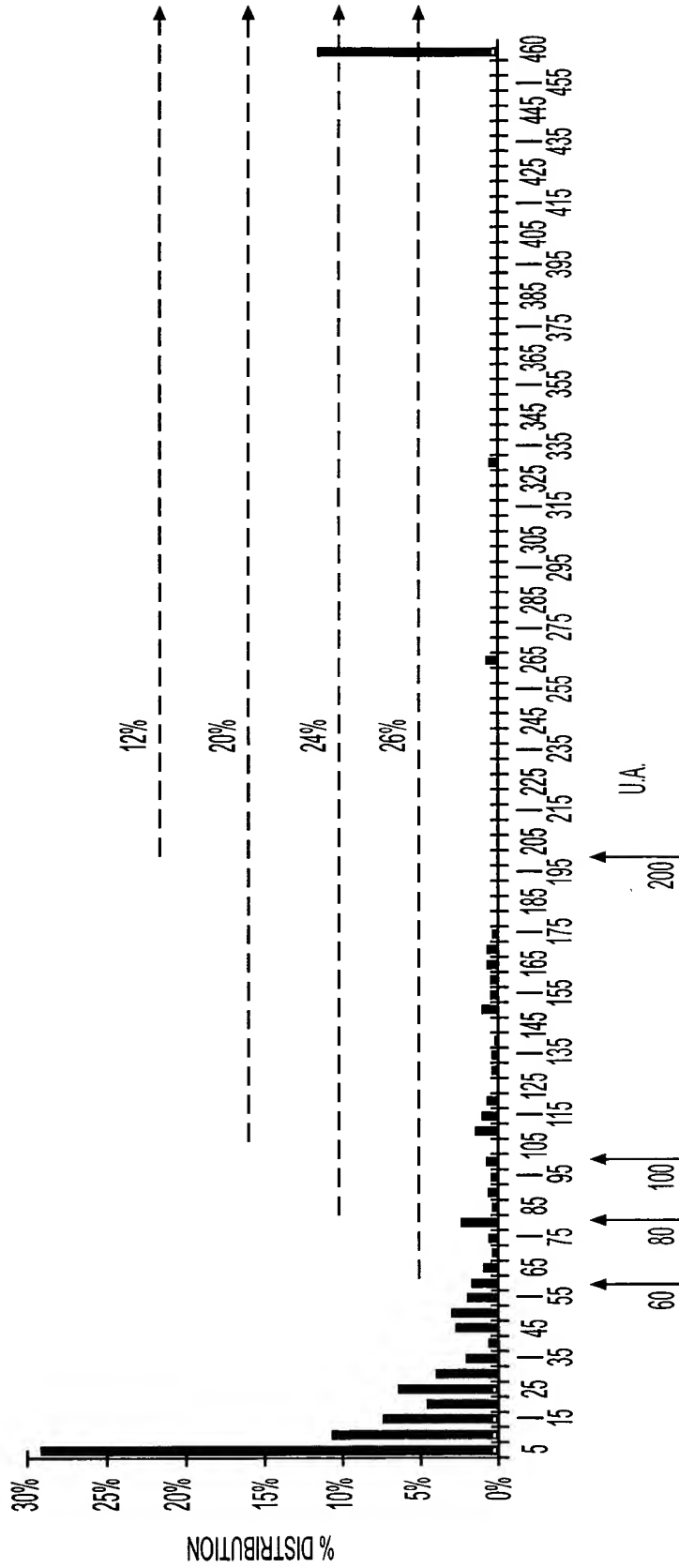
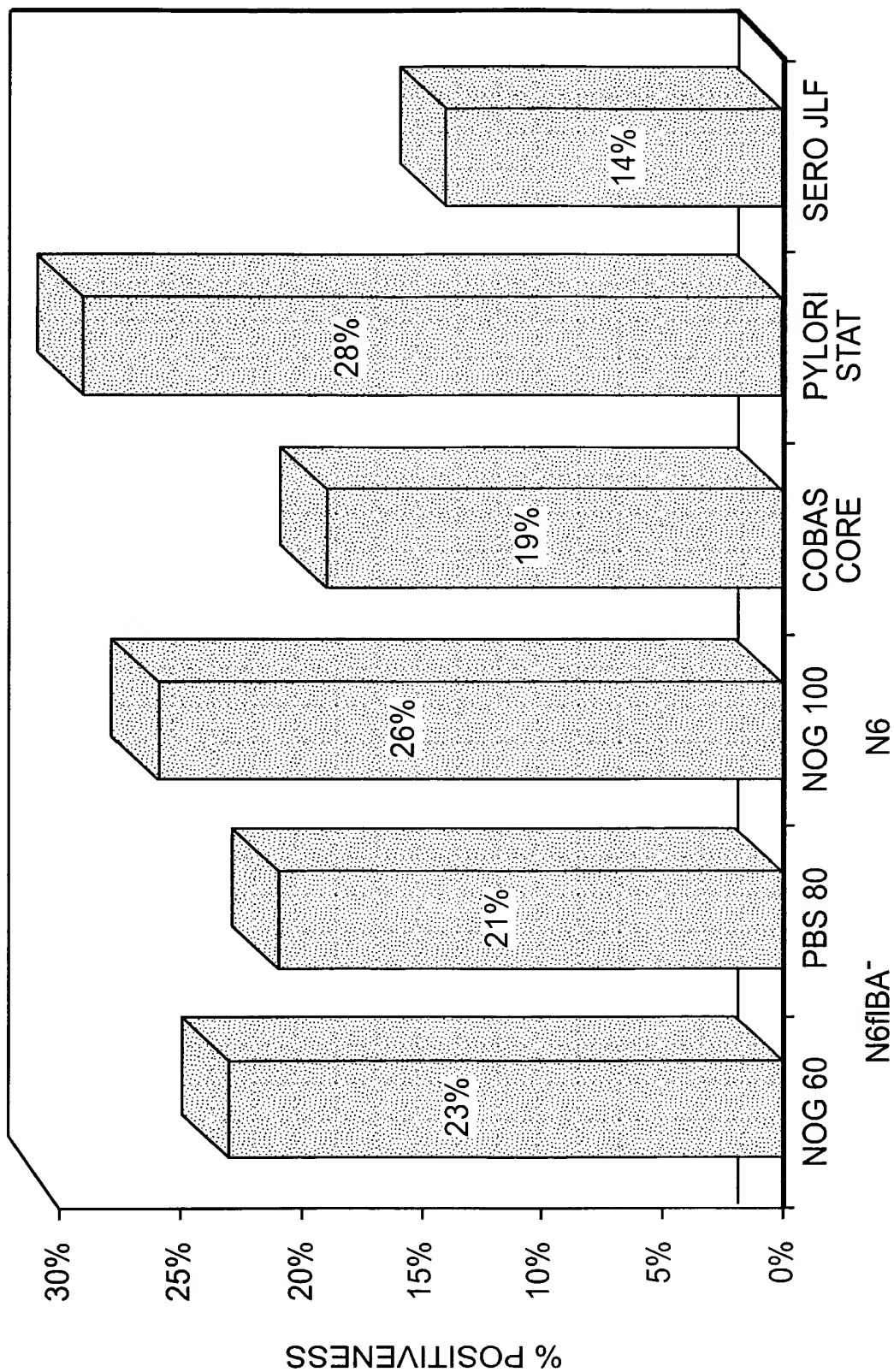


FIG. 9



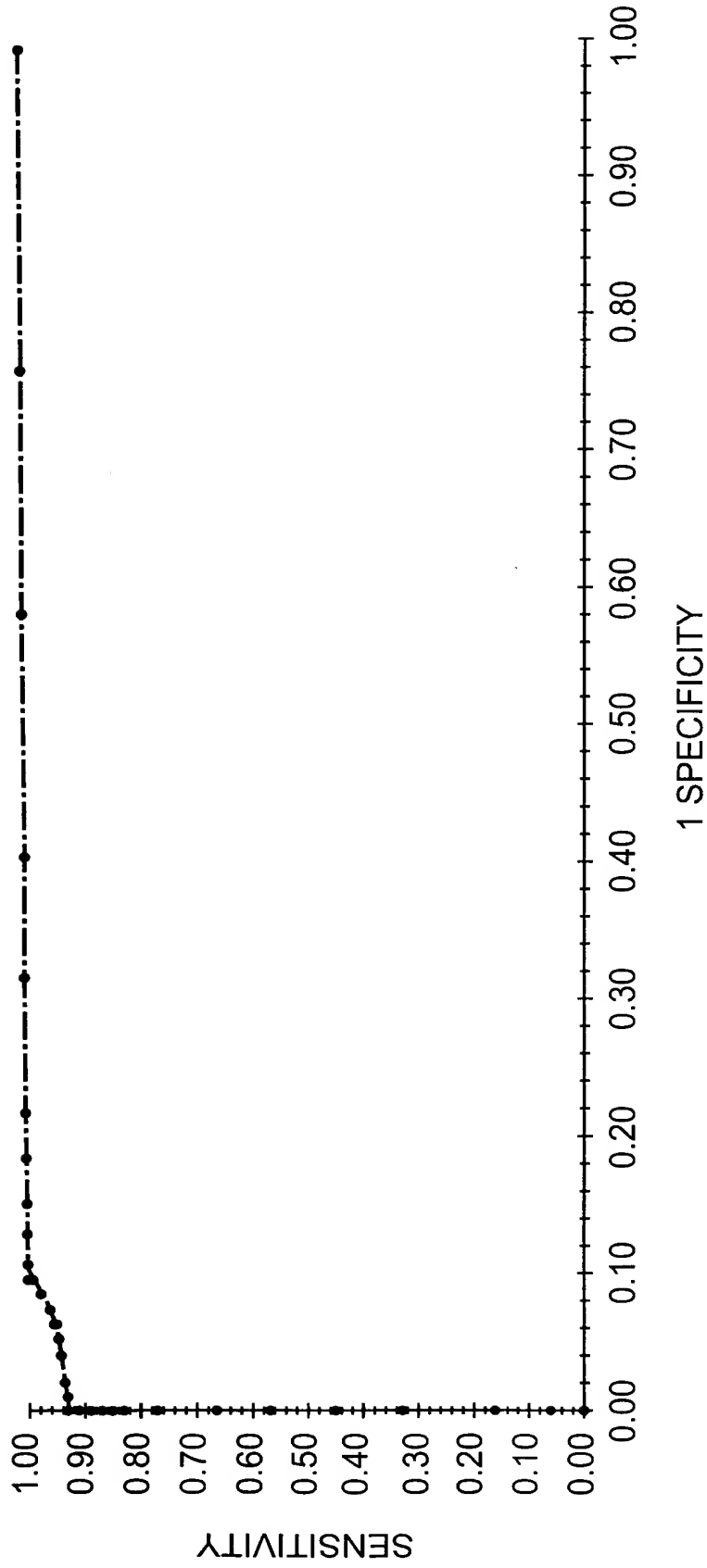
# Replacement Sheet



**FIG. 10**



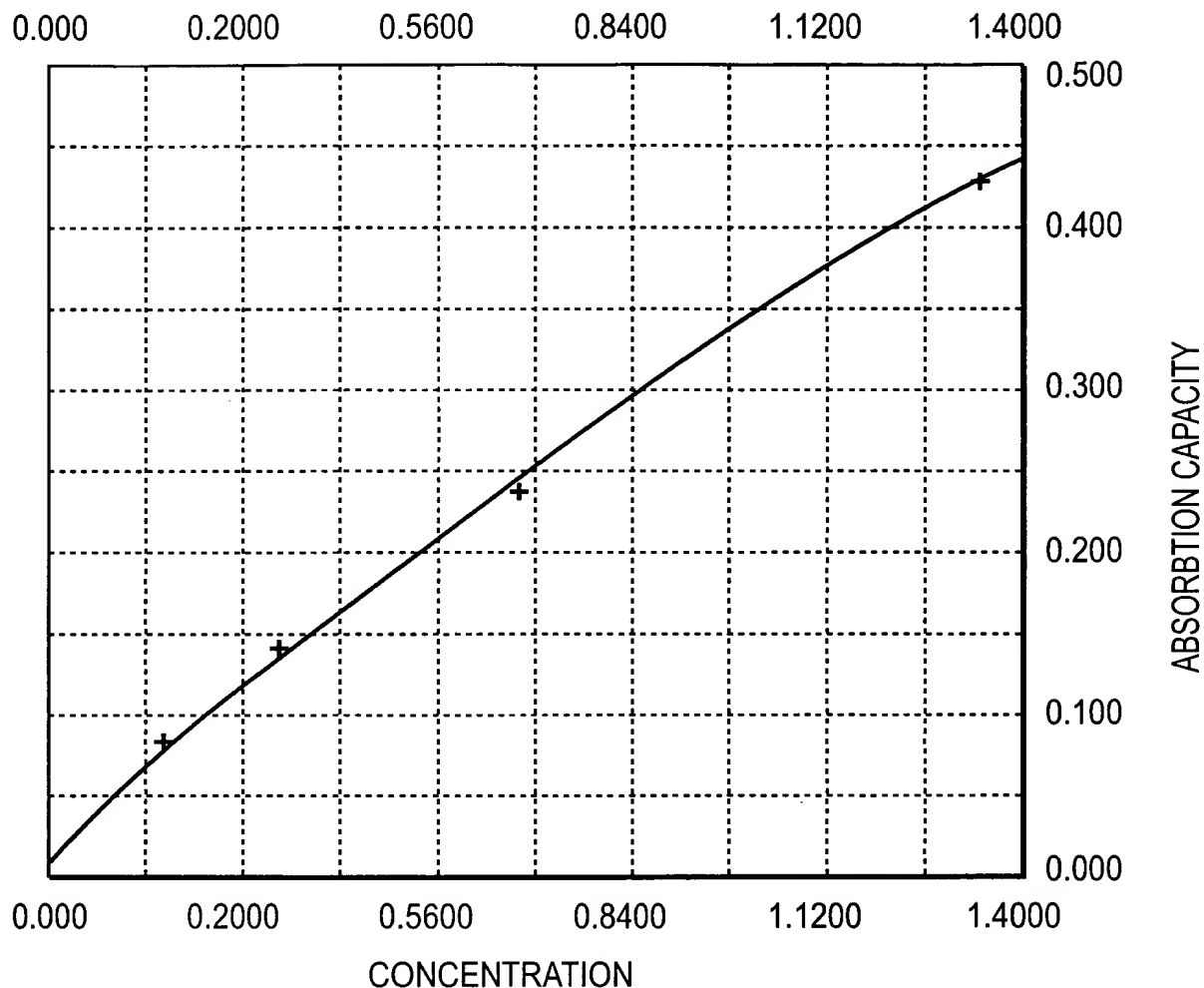
# Replacement Sheet



**FIG. 11**



## Replacement Sheet

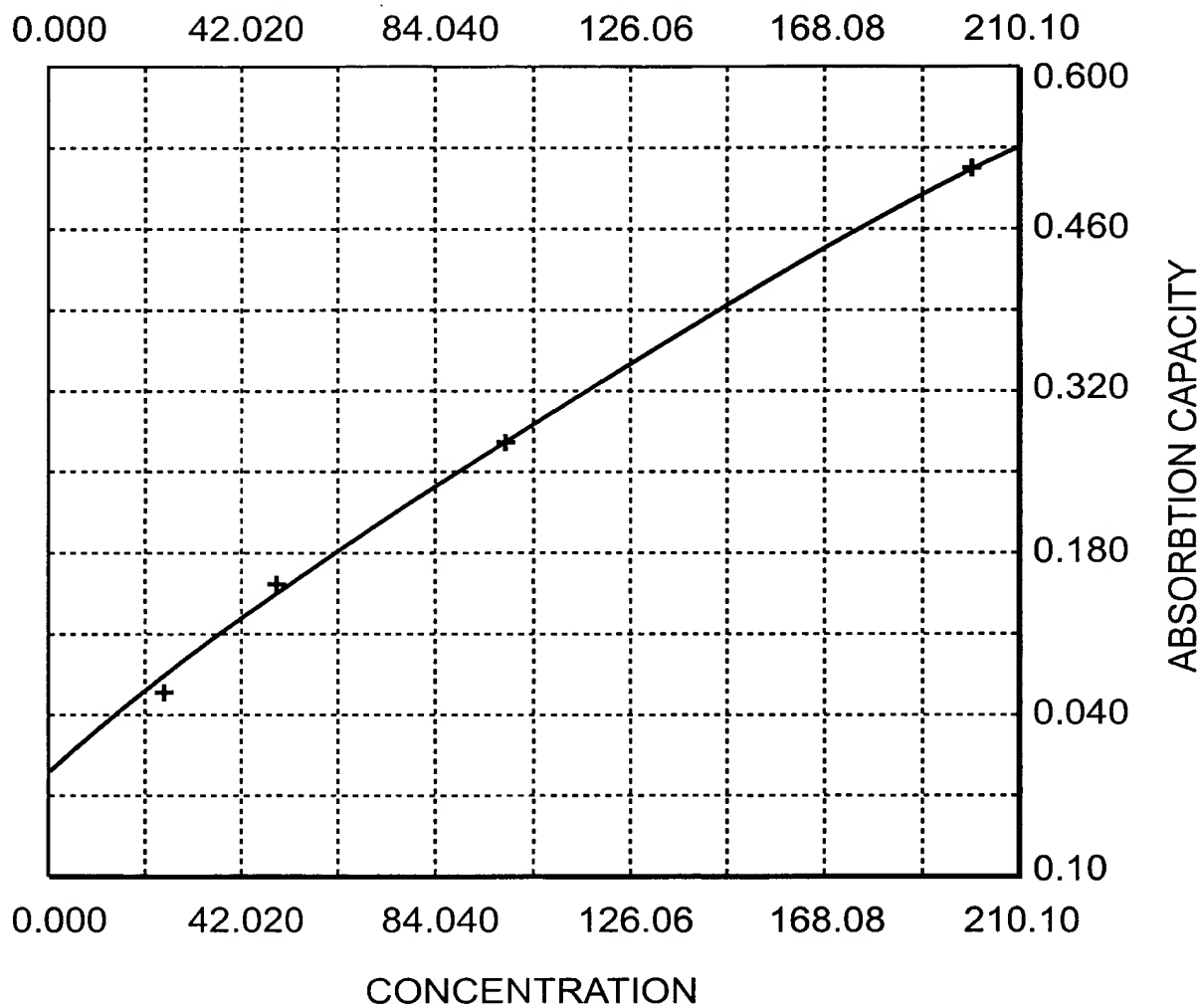


TYPE OF EXTRACT	DO @ 750nm	CONCENTRATION IN mg/ml
<u>GLYCINE</u> (AFTER CENTRIFUGATION FOR 15 min @ 3000 g)	0.028	0.284
<u>N-OCTYL-GLYCOSIDE</u>	0.087	1.004
<u>SUPERNATANT 1</u> (AFTER 1ST PBS WASHING)	0.059	0.844
<u>SUPERNATANT 2</u> (AFTER 2nd PBS WASHING)	0.015	0.1105

**FIG. 12**



# Replacement Sheet



**FIG. 13(A)**



# Replacement Sheet

TYPE OF EXTRACT	DO @ 760 nm	CONCENTRATION IN µg/ml
<u>GLYCINE (AFTER CENTRIFUGATION FOR 15min @ 3000g)</u>	0.279	202.86
<u>N-OCTYL-GLUCOSIDE</u>	0.243	873.99
<u>SUPERNATANT 1 (AFTER 1ST PBS WASHING)</u>	0.361	539.2
<u>SUPERNATANT 2 (AFTER 2ND PBS WASHING)</u>	0.218	77.875

TYPE OF EXTRACT	DO @ 760 nm	CONCENTRATION IN µg/ml
<u>GLYCINE RESIDUE (AFTER 15 min OF CENTRIFUGATION AT 3000g)</u>	0.099	297.5
<u>GLYCINE RESIDUE (AFTER EXTRACTION)</u>	0.093	2778.7
<u>N-OCTYL-GLUCOSIDE (AFTER EXTRACTION)</u>	0.275	972.0

**FIG. 13B**